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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

12

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
P-2685-PC		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/IL00/00620	04/10/2000	06/10/1999
International Patent Classification (IPC) or national classification and IPC B41F27/00		
Applicant KARAT DIGITAL PRESS L.P. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations suporting such statement
   - VI ☐ Certain documents cited
   - VII ☒ Certain defects in the international application
   - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
25/04/2001	15.01.2002
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer D'Incecco, R Telephone No. +49 89 2399 2788

Form PCT/IPEA/409 (cover sheet) (January 1994)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IL00/00620

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:
Description, pages:

1-10 as originally filed

Claims, No.:

1-8 as originally filed

Drawings, sheets:

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	3,4,7
	No:	Claims	1,2,5,6,8
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-8
Industrial applicability (IA)	Yes:	Claims	1-8
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

R Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:
   D1: EP-A-0770480
   D2: US-A-5365847

2. The document D1 is regarded as being the closest prior art to the present invention, and discloses (cf. column 1, lines 38-42, column 5, line 25 - column 8, line 26; figures; and in particular column 5, lines 53-57 and column 7, lines 41-55) a system for elimination of printing registration errors, comprising:
   - a processor programmed for: predicting and calculating registration errors for all pixels of the reference image for each colour separation, wherein the prediction is based on data obtained during a calibration run started before the final production; and computing distortion parameters based on said registration errors for creating distorted images; and
   - an exposure system in communication with said processor for exposing said distorted images to be placed each onto a respective printing plate.
   D1 discloses (see column 9, lines 20-40) to use the strobe data or data of manipulation card in combination with said *calculated* errors to control the rate of imaging to create a distorted image by changing resolution of the image.
   D1 does also implicitly disclose that the processor is adapted for receiving input data including: paper data, at *least* one machine parameter, at *least* one fixed error map, and the ink distribution data.

   The disclosure of D1 therefore anticipates the subject-matter of claims 1, 2, 5, 6 and 8. Claims 1, 2, 5, 6 and 8 are therefore not novel, contrary to the requirement of Article 33(2) PCT.

   Further, it is known to the skilled man to change timing signals to this imaging purpose and to provide a low resolution image file. The subject-matter of claims 3, 4 and 7 does not involve an inventive step, contrary to the requirement of Article 33(3) PCT.

3. The document D2 discloses (cf. column 1, lines 38-42, column 1, line 53 - column 2, line 9, column 2, lines 13-20; column 2, line 56 - column 3, line 14; column 3, lines 22-25, lines 32-38 and lines 56-63; column 4, lines 39-45; column 5, lines 17-44; figures) a system for elimination of printing registration errors, comprising:
- a processor (90) programmed for: predicting (cf. column 3, lines 32-38 and column 4, lines 39-45) and calculating registration errors for all pixels of the reference image for each colour separation; and computing distortion parameters based on said registration errors for creating distorted images; and
- the distorted images are created in relation to the speed of the press (see column 5, lines 31-44) which implies an exposure system in communication with said processor for exposing said distorted images, wherein said distorted image is placed onto a printing plate.
D2 does also implicitly disclose that the processor is adapted for receiving input data including: paper data, at *least* one machine parameter, at *least* one fixed error map, and the ink distribution data.
The disclosure of D2 therefore anticipates the subject-matter of claims 1, 2, 6 and 8. Claims 1, 2, 6 and 8 are therefore not novel, contrary to the requirement of Article 33(2) PCT.

Further, it is known to the skilled man to vary resolution of the image and to change timing signals to this imaging purpose and to provide a low resolution image file. The subject-matter of claims 3, 4, 5 and 7 does not involve an inventive step, contrary to the requirement of Article 33(3) PCT.

Re Item VII

Certain defects in the international application

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.

2. The expression on page 3, lines 5 and 6 of the present application is no longer sustainable in view of the disclosure of D1 and D2.

3. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Rule VIII

Certain observations on the international application

1. Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The functional statement "processor programmed for predicting registration errors" does not enable the skilled person to determine which technical features are necessary to perform the stated function.
   Further, according to the description (see page 3, line 17 - page 4, line 2; paragraph bridging pages 4 and 5; page 6, line 13 - page 9, line 8; and page 9 lines 18-21), the technical features which are necessary to perform said function are also essential for the comprehension and the performance of the present invention. The prediction of errors requires a fixed error map, dependent on machine parameters and obtained during a calibration run, and the calculation of paper stretch (distortion) errors, depending on ink load distribution, paper and machine parameters, wherein the fixed error map, which is stored in memory, is added to the calculated paper stretch errors (or image dependent errors) to obtain the total error magnitude as a function of position.
   As long as independent claims 1 and 6 do not contain these features they do not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

2. The term "exposure system", as in claims 1, 4 and 5 has no support in the description and is also vague and indefinite in meaning, contrary to Article 6 PCT.

3. The term "low resolution file", as used in claims 3 and 7, is a relative term. Since it has no precise meaning in the art, it leaves doubt as to its scope of protection, contrary to Article 6 PCT.

4. The terms "strobe data" and "data manipulation card" have no antecedent basis in claim 6 and are therefore not clear in the context of claim 6.

5. The term "separation", as defined in claim 6, has no basis in the description which refers solely to the combined wording of "colour separation".